

Docket No.: K-0318

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCE**

In re Application of

Confirmation No.: 6861

Sang O. PARK

Group Art Unit: 2623

Serial No.: 09/941,837

Examiner: Michael P. Van Handel

Filed: August 30, 2001

Customer No.: 34610

For: APPARATUS AND METHOD FOR DISPLAYING BROADCAST
INFORMATION OF TELEVISION

APPEAL BRIEF

U.S. Patent and Trademark Office
Customer Window, Mail Stop Appeal Brief-Patents
Randolph Building
401 Dulany Street
Alexandria, Virginia 223134

Sir:

This appeal is taken from the rejection of claims as set forth in the Office Action dated June 18, 2007 (hereinafter the Office Action). In accordance with 37 C.F.R. §41.37, appellant addresses the following items.

REAL PARTY IN INTEREST

The real party in interest is the assignee, LG Electronics Inc. The assignment document is recorded at Reel 012132 and Frame 0440.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals and interferences.

STATUS OF THE CLAIMS

This is an appeal from the final rejection dated June 18, 2007 of claims 1-6, 8-11, 13-22, 24-28 and 30-31. No other claims are pending. The status of the claims is that the pending claims 1-6, 8-11, 13-22, 24-28 and 30-31 are rejected and claims 7, 12, 23 and 29 are canceled.

STATUS OF AMENDMENTS

All Amendments filed in this application have been entered. A copy of appealed claims 1-6, 8-11, 13-22, 24-28 and 30-31 appears in the attached Claims Appendix.

SUMMARY OF THE CLAIMED SUBJECT MATTER

As stated in 37 C.F.R §41.37(c)(v), appellant is providing the following explanation of each of the independent claims 1, 5, 11, 16, 21 and 25 involved in this appeal. This explanation refers to the specification and drawings. The following is merely an example summary and is not intended to be a discussion of the full and entire scope of the claims. Other interpretations, configurations and embodiments are also within the scope of the pending claims.

Independent Claim 1

The present specification discloses an apparatus for displaying broadcast information of a television. See, for example, FIGs. 2-3.

The apparatus may include a broadcast service provider transmitting broadcast signals of each broadcast program including region information and specific information for each region. See, for example, paragraphs [21] and [36]. The region information may indicate a region whereby specific information exists and the specific information may include a plurality of information data relating to an object included within a specific region. See, for example, paragraphs [21], [32], and [36].

The apparatus may also include a television receiver for receiving the broadcast signals transmitted from the broadcast service provider, video processing the received broadcast signals and displaying them through a screen, and displaying the specific information of a corresponding region when a user selects a certain region on the screen. See, for example, paragraph [33] and FIG. 2.

The present specification further discloses that a position of a cursor is moved over the screen in accordance with movement of an indicating device and the television receiver changes a shape or color of the cursor when the cursor is positioned within the specific region in which the specific information exists regarding the object within the specific region. See, for example, paragraphs [39]-[42] and FIGs. 3 (S35), 4 and 5.

Independent Claim 5

The present specification also discloses a method of displaying broadcast information of a television. See, for example, FIGs. 2-3.

The method may include a broadcast service provider transmitting broadcast signals of each broadcast program including region information and specific information for each region. See, for example, paragraphs [21] and [36].

The specific information may include a plurality of information data relating to an object included within a specific region. See, for example, paragraphs [21], [32] and [36].

The method may also include receiving through a television receiver the broadcast signals transmitted from the broadcast service provider, video processing the received broadcast signals and displaying them through a screen, and storing the region information and the specific information for each region among the broadcast signals. See, for example, paragraphs [37]-[38] and FIG. 3 (S32).

The method may further include a user operating an indicating means to search a region on the screen and selecting a desired region. See, for example, paragraphs [39]-[42] and FIGs. 3 (S33-S34), 4 and 5. Operating the indicating means may include moving a position of a cursor in accordance with movement of the indicating means, and changing a shape or color of the cursor when specific information exists corresponding to the region of the screen where the cursor is positioned. See, for example, paragraphs [39]-[42] and FIGs. 3 (S33-S34), 4 and 5.

The specific information may include at least a uniform resource locator (URL) associated with the object within the specific region. See, for example, paragraphs [36], [46] and [49].

The method may further include displaying a video image of the region selected by the user or its corresponding specific information. See, for example, paragraphs [45]-[47] and [49] and FIGs. 3 (S37), 6 and 7.

Independent Claim 11

The present specification also discloses a method of providing supplemental information in a television receiver. See, for example, FIGs. 2-3.

The method may include receiving a broadcasting signal representative of an image, the broadcasting signal including position information of at least one interactive region within the image and supplemental information preassigned to the interactive image region, the supplemental information including a plurality of informational data related to an object to be provided in the interactive image region. See, for example, paragraphs [21], [32] and [36], and FIG. 3 (S31).

The method also includes storing the received position information and the received supplemental information in a memory and displaying the image on a display screen. See, for example, paragraph [38] and FIG. 3 (S32).

The method may additionally include moving a position of a moveable cursor to an area corresponding to the interactive image region and changing a shape or color of the cursor when a stored uniform resource locator exists corresponding to the interactive image region in which the cursor is positioned. See, for example, paragraphs [39]-[45] and FIGs. 3 (S35), 4 and 5.

Still further, the method may include displaying the stored supplemental information on the display screen when the interactive image region is selected by a user. See, for example, paragraphs [45]-[47] and [49] and FIGs. 3 (S37), 6 and 7.

Independent Claim 16

The present specification discloses a method of providing supplemental information in an Internet television receiver. See, for example, FIGs. 2-3.

The method may include receiving a broadcasting signal representative of an image, the broadcasting signal including position information of at least one interactive region within the image and an address of an Internet Web site preassigned to the interactive image region. See, for example, paragraphs [21], [32] and [36] and FIG. 3 (S31).

The method may also include storing the received position information and the Web address in a memory and displaying the image on a display screen. See, for example, paragraph [38] and FIG. 3 (S32).

The method may also include changing a shape or color of a cursor when the cursor is positioned within the at least one interactive region and the address of the Internet Web site

exists regarding an item within the at least one interactive region. See, for example, paragraphs [39]-[45] and FIGs. 3 (S35), 4 and 5.

The method may include connecting to the Web site based on the stored Web address and receiving contents of the Web site when the interactive image region is selected by a user. See, for example, paragraphs [36], [46] and [49].

Still further, the method may include displaying the received contents of the Web site on the display screen. See, for example, paragraphs [45]-[47] and [49] and FIGs. 3 (S37), 6 and 7.

Independent Claim 21

The present specification discloses an interactive television receiver. See, for example, FIG. 2.

The receiver may include a tuner receiving a broadcasting signal representative of an image. See, for example, paragraphs [32]-[33] and FIG. 2. The broadcasting signal may include position information of at least one interactive region within the image and supplemental information preassigned to the interactive image region, and the supplemental information may include a plurality of informational data related to an object to be provided in the interactive image region. See, for example, paragraphs [21], [32] and [36].

The receiver may also include a memory storing the received position information and supplemental information. See, for example, memory unit 38 in FIG. 2 and paragraph [33].

The receiver may still further include a display screen displaying the image. See, for example, CPT 34 in FIG. 2.

The receiver may further include a microprocessor generating control signals for displaying the stored supplemental information on the display screen when the interactive image region is selected by a user. See for example, FIG. 2 and paragraphs [32]-[33].

The microprocessor may change a shape or color of a moveable cursor when the movable cursor is located within the interactive image region in order to indicate an existence of a uniform resource location associated with the object provided in the interactive image region. See, for example, paragraphs [39]-[45] and FIGs. 3 (S35), 4 and 5.

Independent Claim 25

The present specification also discloses an interactive Internet television receiver. See, for example, FIG. 2.

The receiver may include a tuner receiving a broadcasting signal representative of an image. See, for example, paragraphs [32]-[33] and FIG. 2. The broadcasting signal may include position information of at least one interactive region within the image and an address of an Internet Web site preassigned to the interactive region. See, for example, paragraphs [21], [32] and [36].

The receiver may also include a memory storing the received position information and the Web address. See, for example, memory unit 38 in FIG. 2 and paragraph [33].

The receiver may further include a display screen displaying the image. See, for example, CPT 34 in FIG. 2.

The receiver may include an internet module connecting to the Web site based on the stored Web address and receiving contents of the Web site when the interactive image region is selected by a user. See, for example, Internet module 10 in FIG. 2 and paragraph [34].

The receiver may further include a microprocessor generating control signals for displaying the received contents of the Web site on the display screen. See, for example, FIG. 2 and paragraphs [32]-[33].

The microprocessor may change a shape or color of a cursor when the cursor is positioned within the interactive image region and a uniform address locator may exist to obtain specific information regarding an object within the interactive image region. See, for example, paragraphs [39]-[45] and FIGs. 3 (S35), 4 and 5.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4 and 30 stand rejected under 35 U.S.C. §103(a) over U.S. Patent 6,282,713 to Kitsukawa et al. (hereafter Kitsukawa) in view of U.S. Patent Publication 2002/0184627 to Alba et al. (hereafter Alba).

Claims 5-6, 11, 13-14, 16-19, 21-22 and 25-28 stand rejected under 35 U.S.C. §103(a) over U.S. Patent 5,929,849 to Kikinis in view of Alba.

Claims 8 and 31 stand rejected under 35 U.S.C. §103(a) over Kikinis in view of Alba and Kitsukawa.

As discussed below in the section entitled “Argument” appellant has separately made arguments for each of the claims. Appellant believes that each of the claims stands and falls separately from one another.

ARGUMENT

The present application contains six independent claims, namely independent claims 1, 5, 11, 16, 21 and 25. These claims contain different features as may be evidenced by the specifically claimed features and/or as may be pointed out below. For ease of illustration and discussion, similar types of claims (and/or claim features) may be discussed with respect to each other. This is not an admission that the claims are the same or that they stand or fall together. Rather, this is an attempt to narrow the number of issues and to limit the number of arguments. While arguments may be similar for different claims, it should be understood that differently claimed features are expressly used.

Appellant is providing arguments below to show that the applied references do not teach or suggest the features of each of the respective claims. Each of independent claims 1, 5, 11, 16, 21 and 25 is believed to define patentable subject matter as discussed below. Each of the dependent claims depends from at least one of the independent claims and therefore defines

patentable subject matter at least for this additional reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

Independent Claim 16

Independent claim 16 recites changing a shape or color of a cursor when the cursor is positioned within the at least one interactive region and the address of the Internet Web site exists regarding an item within the at least one interactive region.

The Office Action (on page 3) states that Kikinis does not disclose changing a shape or color of a cursor corresponding to the region of the screen where the cursor is positioned within the at least one interactive region. The Office Action (on page 3) also asserts that Alba does not disclose the limitation of changing a shape or color of the cursor when the cursor is positioned within the at least one interactive region and the address of the Internet web site exists regarding an item within the at least one interactive region. The Office Action appears to state that it would be obvious to modify Kikinis' cursor to change its configuration depending on location of the pointer/cursor (as allegedly taught by Alba).

Alba does not teach or suggest the features of independent claim 16 missing from Kikinis. More specifically, Alba does not teach or suggest changing a shape or color of a cursor when the cursor is positioned within the at least one interactive region and the address of the Internet Web site exists regarding an item within the at least one interactive region, as recited in

independent claim 16. Alba merely discloses that a cursor may be changed into an additional information window. This does not suggest the missing features of independent claim 1.

In order to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. See MPEP §2143.03. The Office Action has not shown that all the claim limitations are taught or suggested by the prior art. Thus, the Office Action fails to make a *prima facie* case of obviousness.

Further, it would not have been obvious to modify Kikiinis' cursor as alleged. The Office Action's statement of obviousness is based on improper hindsight since there is no suggestion in the prior art for the features and/or combinations. That is, it is well-founded that when a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references. See ACH Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) and In re Geiger, 815 F.2d, 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). In the present situation, there is no teaching, suggestion, or motivation to combine Kikinis and Alba as alleged. The rejection of the claims should be withdrawn at least for this reason.

Appellant further submits that the only motivation to make the combination/modification as alleged in the Office Action is provided in appellant's own specification. The Office Action can not use appellant's own specification as a "road map" to find the claimed features. As stated in In re Gorman, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991), the references themselves must provide some teaching whereby the combination would have been

obvious. The Office Action has not shown that the combination would have been obvious. The Office Action therefore relies on impermissible hindsight. The applied references do not contain any teaching whereby the claimed features would have been obvious. The Office Action clearly relies on a piecemeal reconstruction of the prior art in order to find claimed features. In view of the above, the combination and rejections are improper and should be withdrawn.

Still further, independent claim 16's limitations are more than "changing a shape or color of the cursor." Rather, independent claim 16 recites changing a shape or color of the cursor when the cursor is positioned within the specific region in which the specific information exists regarding the object within the specific region. Alba does not suggest these specific features.

Alba merely discloses that a cursor may be changed into an additional information window 512 when the pointer/cursor 110 is moved to an edge of the program matrix 108. This does not suggest changing a shape or color when the cursor is positioned with a region in which specific information exists regarding the object. At best, Alba teaches the configuration to change to indicated what a user should do to locate information that is not provided within a current program matrix 108. Alba therefore does not teach or suggest the features of independent claim 16 that are missing from Kikinis. Further, Kikinis may not be properly modified under 35 U.S.C. §103 based on Alba's teaching to obtain the claimed features of changing a shape or color of the cursor when the cursor is positioned within the specific region in which the specific information exists regarding the object within the specific region.

applied references do not teach or suggest at least these features of dependent claim 3 either alone or in combination with the other features of independent claim 1 and/or dependent claim 2. Thus, dependent claim 3 defines patentable subject matter at least for these additional reasons.

Dependent Claim 4

Dependent claim 4 depends from independent claim 1 and dependent claim 2 and therefore defines patentable subject matter at least for this reason. However, dependent claim 4 contains additional features such that dependent claim 4 does not stand or fall together with independent claim 1 and/or dependent claim 2. For example, dependent claim 4 recites that the television receiver further includes an Internet module enabling WEB site information included in the specific information to be read and processed through the screen. The applied references do not teach or suggest at least these features of dependent claim 4 either alone or in combination with the other features of independent claim 1 and/or dependent claim 2. Thus, dependent claim 4 defines patentable subject matter at least for these additional reasons.

Dependent Claim 30

Dependent claim 30 depends from independent claim 1 and therefore defines patentable subject matter at least for this reason. However, dependent claim 30 contains additional features such that dependent claim 30 does not stand or fall together with independent claim 1. For example, dependent claim 30 recites that the television receiver displays a plurality of indexes, each index corresponding to one of the regions having specific information. The applied references do not teach or suggest at least these features of dependent claim 30 either alone or in

combination with the other features of independent claim 1. Thus, dependent claim 30 defines patentable subject matter at least for these additional reasons.

Independent Claim 5

Independent claim 5 recites moving a position of a cursor in accordance with movement of the indicating means, and changing a shape or color of the cursor when specific information exists corresponding to the region of the screen where the cursor is positioned, the specific information including at least a uniform resource locator (URL) associated with the object within the specific region.

The Office Action (on page 9) states that Kikinis does not disclose changing a shape or color of a cursor corresponding to a region of the screen where the cursor is positioned. The Office Action then cites Alba for the missing features. However, Alba does not teach or suggest changing a shape or color of the cursor when specific information exists corresponding to the region of the screen where the cursor is positioned, the specific information including at least a uniform resource locator (URL) associated with the object within the specific region. Alba also does not suggest changing a shape or color of the cursor when specific information exists where the specific information includes at least a uniform resource locator (URL) associated with an object within the specific region.

The Office Action also relies on impermissible hindsight in order to make the combination. The applied references do not contain any teaching whereby the claimed features would have been obvious.

For at least the reasons set forth above, the applied references do not teach or suggest all the features of independent claim 5. Thus, independent claim 5 defines patentable subject matter.

Dependent Claim 6

Dependent claim 6 depends from independent claim 5 and therefore defines patentable subject matter at least for this reason. However, dependent claim 6 contains additional features such that dependent claim 6 does not stand or fall together with independent claim 5. For example, dependent claim 6 recites that the specific information for each region consists of at least one of video related information of a corresponding region and the Internet WEB site URL.

The applied references do not teach or suggest at least these features of dependent claim 6 either alone or in combination with the other features of independent claim 5. The Office Action does not appear to address the specific features of dependent claim 6. Kikinis and Alba do not teach or suggest changing a shape or color of the cursor when specific information exists, where the specific information for each region consists of at least one of video related information of a corresponding region and the Internet web site URL. The cited sections of

Alba do not teach or suggest these features. Thus, dependent claim 6 defines patentable subject matter at least for these additional reasons.

Dependent Claim 8

Dependent claim 8 depends from independent claim 5 and therefore defines patentable subject matter at least for this reason. However, dependent claim 8 contains additional features such that dependent claim 8 does not stand or fall together with independent claim 5. For example, dependent claim 8 recites that the user operating an indicating means includes the user pressing a selection key on the indicating means to select the region, displaying indexes on the regions defined by the region information among the regions of the screen, and selecting a desired index from among the displayed indexes. The applied references do not teach or suggest at least these features of dependent claim 8 either alone or in combination with the other features of independent claim 5. Thus, dependent claim 8 defines patentable subject matter at least for these additional reasons.

Dependent Claim 9

Dependent claim 9 depends from independent claim 5 and therefore defines patentable subject matter at least for this reason. However, dependent claim 9 contains additional features such that dependent claim 9 does not stand or fall together with independent claim 5. For example, dependent claim 9 recites that the displaying includes displaying a video image of a region selected by the user on one side of the screen and displaying corresponding video related information on the rest of the screen.

The applied references do not teach or suggest at least these features of dependent claim 9 either alone or in combination with the other features of independent claim 5. The Office Action's citation to Kikinis' FIG. 2C does not suggest displaying a video on one side of the screen and displaying corresponding video related information on the rest of the screen. Thus, dependent claim 9 defines patentable subject matter at least for these additional reasons.

Dependent Claim 10

Dependent claim 10 depends from independent claim 5 and therefore defines patentable subject matter at least for this reason. However, dependent claim 10 contains additional features such that dependent claim 8 does not stand or fall together with independent claim 5. For example, dependent claim 10 recites that the displaying includes connecting to an Internet WEB site corresponding to the video image of the selected region and displaying a corresponding screen image. The applied references do not teach or suggest at least these features of dependent claim 10 either alone or in combination with the other features of independent claim 5. Thus, dependent claim 10 defines patentable subject matter at least for these additional reasons.

Independent Claim 11

Independent claim 11 recites moving a position of a moveable cursor to an area corresponding to the interactive image region and changing a shape or color of the cursor when a stored uniform resource locator exists corresponding to the interactive image region in which the cursor is positioned.

The Office Action (on page 9) states that Kikinis does not disclose changing a shape or color of a cursor corresponding to a region of the screen where the cursor is positioned. The Office Action cites Alba for the missing features of independent claim 11. However, Alba does not teach or suggest changing a shape or color of the cursor when a stored uniform resource locator exists corresponding to the interactive image region in which the cursor is positioned.

The Office Action also relies on impermissible hindsight in order to make the combination. The applied references do not contain any teaching whereby the claimed features would have been obvious.

For at least the reasons set forth above, the applied references do not teach or suggest all the features of independent claim 11. Thus, independent claim 11 defines patentable subject matter.

Dependent Claim 13

Dependent claim 13 depends from independent claim 11 and therefore defines patentable subject matter at least for this reason. However, dependent claim 13 contains additional features such that dependent claim 13 does not stand or fall together with independent claim 11. For example, dependent claim 13 recites that the user selects the interactive image region by locating the moveable cursor within the interactive image region and entering a selection command via a television (TV) control unit.

The applied references do not teach or suggest at least these features of dependent claim 13 either alone or in combination with the other features of independent claim 11. The Office

Action does not appear to address the specific features of dependent claim 13. The Office Action states that Kikinis does not teach or suggest the features of “changing a shape or color...in which the cursor is positioned.” Alba also does not teach or suggest these features in combination with a user selects the interactive image region by locating the moveable cursor within the interactive image region and entering a selection command. Rather, Alba relates to changing a cursor when the pointer/cursor 10 is moved to an edge of a program matrix 108. This does not suggest selecting an interactive image region by locating a moveable cursor within the interactive image region and entering a selection command. Thus, dependent claim 13 defines patentable subject matter at least for these additional reasons.

Dependent Claim 14

Dependent claim 14 depends from independent claim 11 and dependent claim 13 and therefore defines patentable subject matter at least for this reason. However, dependent claim 14 contains additional features such that dependent claim 14 does not stand or fall together with independent claim 11 and/or dependent claim 13. For example, dependent claim 14 recites that the changes in shape or color of the moveable cursor indicates an existence of the supplemental information.

The applied references do not teach or suggest at least these features of dependent claim 14 either alone or in combination with the other features of independent claim 11 and/or dependent claim 13. Alba does not teach or suggest that changes in shape or color indicates an existence of the supplemental information, where the supplemental information including a

plurality of informational data related to an object to be provided in the interactive image region (as recited in independent base claim 1). Thus, dependent claim 14 defines patentable subject matter at least for these additional reasons.

Dependent Claim 15

Dependent claim 15 depends from independent claim 11 and therefore defines patentable subject matter at least for this reason. However, dependent claim 15 contains additional features such that dependent claim 15 does not stand or fall together with independent claim 11. For example, dependent claim 15 recites undisplaying the supplemental information from the display screen when a return command is received from the user, and redisplaying the image on the display screen. The applied references do not teach or suggest at least these features of dependent claim 15 either alone or in combination with the other features of independent claim 11. Thus, dependent claim 15 defines patentable subject matter at least for these additional reasons.

Independent Claim 21

Independent claim 21 recites the microprocessor changes a shape or color of a moveable cursor when the movable cursor is located within the interactive image region in order to indicate an existence of a uniform resource location associated with the object provided in the interactive image region.

The Office Action (on page 9) states that Kikinis does not disclose changing a shape or color of a cursor corresponding to a region of the screen where the cursor is positioned. The Office Action cites Alba for the missing features of independent claim 21. However, Alba does not teach or suggest changing a shape or color of a moveable cursor when the moveable cursor is located within the interactive image region in order to indicate an existence of a uniform resource associated with the object provided in the interactive image region.

The Office Action also relies on impermissible hindsight in order to make the combination. The applied references do not contain any teaching whereby the claimed features would have been obvious.

For at least the reasons set forth above, the applied references do not teach or suggest all the features of independent claim 21. Thus, independent claim 21 defines patentable subject matter.

Dependent Claim 22

Dependent claim 22 depends from independent claim 21 and therefore defines patentable subject matter at least for this reason. However, dependent claim 22 contains additional features such that dependent claim 22 does not stand or fall together with independent claim 21. For example, dependent claim 22 recites that the user selects the interactive image region by locating the moveable cursor within the interactive image region and entering a selection command via a television (TV) control unit.

The applied references do not teach or suggest at least these features of dependent claim 22 either alone or in combination with the other features of independent claim 21. The Office Action does not appear to address the specific features of dependent claim 22. The Office Action states that Kikinis does not teach or suggest the features of “changing a shape or color...in which the cursor is positioned.” Alba does not teach or suggest the features of independent claim 21 in combination with the user selects the interactive image region by locating the moveable cursor within the interactive image region and entering a selection command. Rather, Alba relates to changing a cursor when the pointer/cursor 10 is moved to an edge of a program matrix 108. This does not suggest selecting an interactive image region by locating a moveable cursor within the interactive image region and entering a selection command. Thus, dependent claim 22 defines patentable subject matter at least for these additional reasons.

Dependent Claim 24

Dependent claim 24 depends from independent claim 21 and therefore defines patentable subject matter at least for this reason. However, dependent claim 24 contains additional features such that dependent claim 24 does not stand or fall together with independent claim 21. For example, dependent claim 24 recites that the microprocessor further generates control signals for undisplaying the supplemental information and redisplaying the image on the display screen when a return command is received from the user. The applied references do not teach or suggest at least these features of dependent claim 24 either alone or in combination with the

other features of independent claim 21. Thus, dependent claim 24 defines patentable subject matter at least for these additional reasons.

Independent Claim 25

Independent claim 25 recites that the microprocessor changes a shape or color of a cursor when the cursor is positioned within the interactive image region and a uniform address locator exists to obtain specific information regarding an object within the interactive image region.

The Office Action (on page 9) states that Kikinis does not disclose changing a shape or color of a cursor corresponding to a region of the screen where the cursor is positioned. The Office Action then cites Alba for the missing features of independent claim 25. However, Alba does not teach or suggest changing a shape or color of the cursor when the cursor is positioned within the interactive image region and a uniform address locator exists to obtain specific information regarding an object within the interactive image region.

The Office Action also relies on impermissible hindsight in order to make the combination. The applied references do not contain any teaching whereby the claimed features would have been obvious.

For at least the reasons set forth above, the applied references do not teach or suggest all the features of independent claim 25. Thus, independent claim 25 defines patentable subject matter.

Dependent Claim 26

Dependent claim 26 depends from independent claim 25 and therefore defines patentable subject matter at least for this reason. However, dependent claim 26 contains additional features such that dependent claim 26 does not stand or fall together with independent claim 25. For example, dependent claim 26 recites that the Internet Web site includes one or more Internet Web pages related to the object within the interactive image region. The applied references do not teach or suggest at least these features of dependent claim 26 either alone or in combination with the other features of independent claim 25. Thus, dependent claim 26 defines patentable subject matter at least for these additional reasons.

Dependent Claim 27

Dependent claim 27 depends from independent claim 25 and therefore defines patentable subject matter at least for this reason. However, dependent claim 27 contains additional features such that dependent claim 27 does not stand or fall together with independent claim 25. For example, dependent claim 27 recites that the address of the Web site is a uniform resource locator (URL). The applied references do not teach or suggest at least these features of dependent claim 27 either alone or in combination with the other features of independent claim 25. Thus, dependent claim 27 defines patentable subject matter at least for these additional reasons.

Dependent Claim 28

Dependent claim 28 depends from independent claim 25 and therefore defines patentable subject matter at least for this reason. However, dependent claim 28 contains additional features such that dependent claim 28 does not stand or fall together with independent claim 25. For example, dependent claim 28 recites that the user selects the interactive image region by locating the cursor within the interactive image region and entering a selection command via a TV control unit.

The applied references do not teach or suggest at least these features of dependent claim 28 either alone or in combination with the other features of independent claim 25. The Office Action does not appear to address the specific features of dependent claim 28. The Office Action states that Kikinis does not teach or suggest the features of “changing a shape or color...in which the cursor is positioned.” Alba also does not teach or suggest the features of independent claim 25 in combination with the user selects the interactive image region by locating the cursor within the interactive image region and entering a selection command. Rather, Alba relates to changing a cursor when the pointer/cursor 10 is moved to an edge of a program matrix 108. This does not suggest selecting an interactive image region by locating a cursor within the interactive image region and entering a selection command. Thus, dependent claim 28 defines patentable subject matter at least for these additional reasons.

CLAIMS APPENDIX

The attached Claims Appendix contains a copy of the claims involved in the appeal.

EVIDENCE APPENDIX

Appellant has not provided any evidence with this appeal and therefore an Evidence Appendix is not provided.

RELATED PROCEEDINGS APPENDIX

Appellant is not providing copies of related decisions and therefore a Related Proceeding Appendix is not provided.

CONCLUSION

It is respectfully submitted that the above arguments show that each of claims 1-6, 8-11, 13-22, 24-28 and 30-31 are patentable over the applied references. Based at least on these reasons, it is respectfully submitted that each of claims 1-6, 8-11, 13-22, 24-28 and 30-31 defines patentable subject matter. Appellant respectfully requests that the rejections of claims 1-6, 8-11, 13-22, 24-28 and 30-31 set forth in the June 18, 2007 Office Action be withdrawn.

Respectfully submitted,
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CLAIMS APPENDIX

1. An apparatus for displaying broadcast information of a television comprising:
 - a broadcast service provider transmitting broadcast signals of each broadcast program including region information and specific information for each region, the region information indicating a region whereby specific information exists and the specific information including a plurality of information data relating to an object included within a specific region; and
 - a television receiver for receiving the broadcast signals transmitted from the broadcast service provider, video processing the received broadcast signals and displaying them through a screen, and displaying the specific information of a corresponding region when a user selects a certain region on the screen, wherein a position of a cursor is moved over the screen in accordance with movement of an indicating device and the television receiver changes a shape or color of the cursor when the cursor is positioned within the specific region in which the specific information exists regarding the object within the specific region.

2. The apparatus according to claim 1, wherein the television receiver includes:
 - a TV controlling means for enabling the user to control TV functions and to select screen regions;
 - a video processing unit for video processing the broadcast signals and the specific information corresponding to each region and for displaying the signals and information on the screen;
 - a memory unit for storing the region information and the specific information corresponding to each region; and
 - a microcomputer for reading, from the memory unit, the specific information corresponding to the region of the screen selected by the user through the TV controlling means with reference to the region information and for outputting the information to the video processing unit.

3. The apparatus according to claim 2, wherein the TV controlling means includes a direction key or a track ball for selecting the screen regions.

4. The apparatus according to claim 2, wherein the television receiver further includes an Internet module enabling WEB site information included in the specific information to be read and processed through the screen.

5. A method of displaying broadcast information of a television comprising the steps of:

a broadcast service provider transmitting broadcast signals of each broadcast program including region information and specific information for each region, the specific information including a plurality of information data relating to an object included within a specific region;

receiving through a television receiver the broadcast signals transmitted from the broadcast service provider, video processing the received broadcast signals and displaying them through a screen, and storing the region information and the specific information for each region among the broadcast signals;

a user operating an indicating means to search a region on the screen and selecting a desired region, wherein the user operating the indicating means includes:

moving a position of a cursor in accordance with movement of the indicating means, and

changing a shape or color of the cursor when specific information exists corresponding to the region of the screen where the cursor is positioned, the specific information including at least a uniform resource locator (URL) associated with the object within the specific region; and

displaying a video image of the region selected by the user or its corresponding specific information.

6. The method according to claim 5, wherein the specific information for each region consists of at least one of video related information of a corresponding region and the Internet WEB site URL.

8. The method according to claim 5, wherein the step of the user operating an indicating means to search a region on the screen and selecting a desired region includes the steps of:

the user pressing a selection key on the indicating means to select the region;
displaying indexes on the regions defined by the region information among the regions of the screen; and
selecting a desired index from among the displayed indexes.

9. The method according to claim 5, wherein the step of displaying a video image of the region selected by the user or its corresponding specific information includes the step of:
displaying a video image of a region selected by the user on one side of the screen and displaying corresponding video related information on the rest of the screen.

10. The method according to claim 5, wherein the step of displaying a video image of the region selected by the user or its corresponding specific information includes the step of:

connecting to an Internet WEB site corresponding to the video image of the selected region and displaying a corresponding screen image.

11. A method of providing supplemental information in a television receiver, the method comprising:

receiving a broadcasting signal representative of an image, the broadcasting signal including position information of at least one interactive region within the image and supplemental information preassigned to the interactive image region, the supplemental information including a plurality of informational data related to an object to be provided in the interactive image region;

storing the received position information and the received supplemental information in a memory and displaying the image on a display screen;

moving a position of a moveable cursor to an area corresponding to the interactive image region and changing a shape or color of the cursor when a stored uniform resource locator exists corresponding to the interactive image region in which the cursor is positioned; and

displaying the stored supplemental information on the display screen when the interactive image region is selected by a user.

13. The method of claim 11, wherein the user selects the interactive image region by locating the moveable cursor within the interactive image region and entering a selection command via a television (TV) control unit.

14. The method of claim 13, wherein the changes in shape or color of the moveable cursor indicates an existence of the supplemental information.

15. The method of claim 11, further comprising:
undisplaying the supplemental information from the display screen when a return command is received from the user; and
redisplaying the image on the display screen.

16. A method of providing supplemental information in an Internet television receiver, the method comprising:
receiving a broadcasting signal representative of an image, the broadcasting signal including position information of at least one interactive region within the image and an address of an Internet Web site preassigned to the interactive image region;
storing the received position information and the Web address in a memory and displaying the image on a display screen;

changing a shape or color of a cursor when the cursor is positioned within the at least one interactive region and the address of the Internet Web site exists regarding an item within the at least one interactive region;

connecting to the Web site based on the stored Web address and receiving contents of the Web site when the interactive image region is selected by a user; and displaying the received contents of the Web site on the display screen.

17. The method of claim 16, wherein the Internet Web site includes one or more Internet Web pages related an object included in the interactive image region.

18. The method of claim 16, wherein the address of the Internet Web site is a uniform resource locator (URL).

19. The method of claim 16, wherein the user selects the interactive image region by locating the cursor within the interactive image region and entering a selection command via a television (TV) control unit.

20. The method of claim 16, further comprising:

undisplaying the contents of the Web site from the display screen when a return command is received from the user; and
redisplaying the image on the display screen.

21. An interactive television receiver comprising:

a tuner receiving a broadcasting signal representative of an image, the broadcasting signal including position information of at least one interactive region within the image and supplemental information preassigned to the interactive image region, the supplemental information including a plurality of informational data related to an object to be provided in the interactive image region;

a memory storing the received position information and supplemental information;

a display screen displaying the image; and

a microprocessor generating control signals for displaying the stored supplemental information on the display screen when the interactive image region is selected by a user, wherein the microprocessor changes a shape or color of a moveable cursor when the movable cursor is located within the interactive image region in order to indicate an existence of a uniform resource location associated with the object provided in the interactive image region.

22. The interactive television receiver of claim 21, wherein the user selects the interactive image region by locating the moveable cursor within the interactive image region and entering a selection command via a television (TV) control unit.

24. The interactive television receiver of claim 21, wherein the microprocessor further generates control signals for undisplaying the supplemental information and redisplaying the image on the display screen when a return command is received from the user.

25. An interactive Internet television receiver comprising:

- a tuner receiving a broadcasting signal representative of an image, the broadcasting signal including position information of at least one interactive region within the image and an address of an Internet Web site preassigned to the interactive region;
- a memory storing the received position information and the Web address;
- a display screen displaying the image;
- an internet module connecting to the Web site based on the stored Web address and receiving contents of the Web site when the interactive image region is selected by a user; and
- a microprocessor generating control signals for displaying the received contents of the Web site on the display screen, wherein the microprocessor changes a shape or color of a cursor when the cursor is positioned within the interactive image region and a uniform address

locator exists to obtain specific information regarding an object within the interactive image region.

26. The interactive Internet receiver of claim 25, wherein the Internet Web site includes one or more Internet Web pages related to the object within the interactive image region.

27. The interactive Internet receiver of claim 25, wherein the address of the Web site is a uniform resource locator (URL).

28. The interactive Internet receiver of claim 25, wherein the user selects the interactive image region by locating the cursor within the interactive image region and entering a selection command via a TV control unit.

30. The apparatus according to claim 1, wherein the television receiver displays a plurality of indexes, each index corresponding to one of the regions having specific information.

31. The method of claim 16, further comprising displaying a plurality of indexes and selecting one of the indexes, wherein each index corresponds to one of a plurality of interactive image regions having an associated address of an Internet web site.